## REMARKS FOR ADMINISTRATOR BOLDEN ALLIANCE FOR PEACEBUILDING

**NEXT GEN PEACE: WINNING TEAMS** 

MAY 24, 2016

Before I get into my formal remarks, I'd like to give a special thanks to my friend Bob Berg for introducing me to the work of this Alliance and inviting me to join you for this session. It seems appropriate to begin remarks at a gathering focused on peace to invoke the words of one of the greatest of all peacemakers – the Reverend Dr. Martin Luther King, Jr. He said, "An individual has not started living until he can rise above the narrow confines of his individualistic concerns to the broader concerns of all humanity."

I think that's what we're all doing here, no matter the field in which we toil. No matter the width and breadth of our achievements, if we're not thinking of that broader concern, then we are likely not going to be successful in the long term.

At NASA, we have perhaps one of the broadest purviews of anyone – not only our home planet, but also the solar system and the universe beyond.

People likely think of NASA in terms of our astronauts and since I am one, I'm happy to be one of those universal ambassadors for international good will. I think the astronaut corps has been one of the greatest inventions of our times and I'm talking about that in the broadest of terms again, because the nations of many worlds have selected their best, most innovative, most skilled individuals to train for the ultimate journey, away from the confines of gravity and to the heavens where our planet can be viewed as a globe -as an entity -- not a locality. The astronaut corps in the U.S. has also grown to include women and people of multiple races, religions and ideologies – something we're striving to strengthen and expand.

The makeup of the NASA Astronaut Office increasingly looks like today's world and they inspire the next generation to do the things about which people born in my generation only dreamed.

My generation dreamed but we also did. I'm proud to be giving the next generation a firm foundation from which to make their own way through the cosmos; to become better stewards of our planet; to look for life elsewhere in our universe and to make humanity proud by doing things that were once thought impossible.

I think that's the basis of peacebuilding as well. Providing inspiration and hope for a better tomorrow makes people want to work together, to focus on the positive and on the ways we can collaborate and embrace our differences for the betterment of all.

So I think what we do at NASA makes a very strong contribution to peace. We have helped the world move from a space race to an era of international cooperation. We're building next generation or 'next gen' aircraft and next gen transportation systems to space as well. Why not next gen peace?

In fact, all of these things fit together. As we increase the capabilities to explore, we improve life on Earth. The International Space Station's water reclamation system, for instance, is a technology that has been adapted to help people on Earth who have limited access to fresh water.

The NASA-USAID SERVIR program brings space to village. As many of you will know, the Spanish verb servir means 'to serve'. This unique program brings space to village as it combines Earth science data from space with data from ground observations.

Through use of this data, scientists are able to apply all this knowledge toward giving local decision-makers, farmers and disaster relief authorities the ability to make better choices about resource use, crop and water planning, recovery from natural disasters, and many other ways to improve stability and make the world a better place in which to live. SERVIR is gathering information in the service of a better way of life on Earth.

That's building next gen peace.

Now, as a military leader and a commander of missions to space, I've been at the head of a few teams. As the leader of our nation's civil space agency with some 18,000 federal employees and many more contractors working to make our journey to Mars unfold I am required to do a lot of international team building.

At the same time, we manage dozens of science missions throughout the solar system and peering beyond it and improve the technology on the runways and in the airspace of aviation systems worldwide – let's just say that too is a lot of team building.

There's no way any of this happens in a vacuum. Even the vacuum of space is populated by international crews aboard the International Space Station that orbit our planet 16 times every day, seeing sunrises and sunsets repeatedly, witnessing the entire sweep of our Earth every single day as no one else does. Viewing our wonderful planet from that special vantage point is an incredible experience, let me tell you. At times you feel quite removed from the daily life of the planet and you can see its fragile beauty. But then you see the enormity of a hurricane as observed from space, or the huge plumes of smoke from a wildfire that are visible hundreds of miles above the surface.

In the blackness of space on the dark side of Earth with billions of stars as a backdrop, you see giant metropolises like Tokyo, Paris or New York City sending their million points of light out into the darkness and the human story in which we all take part becomes central to your thoughts.

So I think our space program is perhaps the greatest example of how we can cross borders for the peaceful pursuit of something greater thank ourselves on behalf of all humanity.

We can work together toward a greater purpose. Certainly one of the International Space Station's greatest legacies will be how it brought diverse nations together to build something big and lasting – a legacy project on which humanity can build to travel farther into the solar system. Something we can all agree is a wonderful testament to human ingenuity, a platform for extending our reach that bears the contributions of many nations who may not always agree on everything back here on the ground.

Science and technology cross borders in the very best of ways because they bring together the greatest minds of nations to work on the big challenges we face. They help us uncover new knowledge and shape the future together.

They're doing so right now.

Undoubtedly, a lot of you have heard about our journey to Mars. It's something on which our generation and the next are going to have to work hard over many years to bring to fruition. So we have to build a firm foundation of international collaboration – a consensus plan on a way forward.

And we've been doing just that.

We're closer than we ever have been to the Red Planet, and there is wide consensus, not only here in the U.S. Congress and Administration, but among our partners in industry and academia.

There is now consensus among our international partners that our horizon goal is Mars in the 2030s. We have a stepping stone approach to build our way there, to mature technologies as we go. The question is no longer "Why Mars?", but "How can I be part of it?"

Our plan is affordable, sustainable and achievable. It's a legacy I'm proud to leave the Mars Generation – the students in school right now that are going to be the first boots on Mars. They are people like my granddaughters, who have never known a time when people of many nations have not lived and worked together in space aboard the ISS (nearly 16 years and counting). They are the generation that has never known a time when it was not easy to connect with someone across the globe to share their experiences or knowledge; to make friends with people of other cultures and other nations; and to build bridges to the future where a global endeavor of many nations working together, ventures to Mars.

So how do we build a team for peace?

As I said earlier, I think space is a great unifier in the pursuit of the peaceful improvement of humanity's capabilities; indeed it improves life for everyone on the globe. The "team" is composed of international partners and we have a lot of dialogue and exchange. We allow our partners to pursue their interests and for those interests to inform and enhance our work.

We have built international crews aboard the ISS to do research to improve our knowledge of how to live and work safely and healthily in space for the long term. Some 90 nations have now used the Station for research and around 250 experiments are ongoing in any given 6-month period.

The team also relies on the innovation of industry and entrepreneurs, for instance, to develop the commercial resupply systems currently bringing cargo and experiments to the station and which will soon transport astronauts once again from American soil.

I won't say it's easy or that things always go smoothly.

But I can always say it's worth it.

Now, as to the types of people on those teams -- people think of NASA in terms of technology and space, but we see ourselves in broader strokes. Yes, we are science, technology, engineering and mathematics, but the arts and design are also crucial. It's a potent recipe because we're trying to win hearts and minds. Our work is not just about exploring, it's about the human spirit – the need to do big things.

It's about humanity's story and our quest to determine at last if we have companions out there, even if they're just microbes. It's about sharing that story through writing and painting and music.

So the teams we build for peace have to be the same. They must be nuanced and deep – with a strong foundation of knowledge, but brushed with the hand of an artist and molded with the input of philosophers and thinkers – with diplomats and politicians to help implement policy that enables the bigger, bolder visions like explorers and scientists to travel on missions completely independent of Earth.

Everyone is necessary. At NASA, I always say that excellence and passion are what I'm looking for. If you're willing to do the hard work to help me put boots on Mars, in whatever capacity you do it, then I want you on my team.

So as we discuss today the teambuilding that we need to create next gen peace, I for one would like to think more about the context in which we build our teams. Are we too focused and rigid, or are we open to other viewpoints and ways of doing things and ways that our work can be enhanced by people who are not like us in thinking, training, nationality, culture or religion.

It's how humanity is going to expand its reach to other places beyond the confines of our home planet. It's going to be how we keep this wonderful home of ours safe from the changing climate and how we learn ever more about our place in the universe. Its how we keep our planet a place where explorers will want to return even as they regale us with their stories of the amazing things they've seen, like humanity's eyes seeing the sun rise over the plains of Mars or the icy seas or Europa.

All of this is possible if we continue to build the right teams to make it happen. Mars is within our grasp because the people and the teams to get there are forming and evolving right now. It's going to be one of the most challenging and exciting accomplishments humanity has ever undertaken and it is only possible through peaceful cooperation.

At NASA, we thrive on turning science fiction into science fact and making the impossible possible. Relevant to the idea of humanity venturing out on a common journey farther than we've ever been before, I'd like to end with another Martin Luther King quote: "We may have all come on different ships, but we're in the same boat now."

I look forward to our discussion today.